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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

First Named Inventor:	Hiroaki ABEKAWA,	§	
et al		§	
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Conf. No.:	To Be Assigned	§	Group Art Unit: To Be Assigned
		§	
International		§	Examiner: To Be Assigned
Appln. No.:	PCT/JP03/002289		
		§	
International		§	Attorney Docket No.: 600630-24US
Filing Date:	28 February 2003	§	(595534US01)

Title: METHOD FOR IMPROVING CRYSTALLINE TITANOSILICATE CATALYST  
HAVING MWW STRUCTURE

**INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §1.97(b)**

Enclosed are copies of each of the documents listed on the attached Information Disclosure Citation Form(s) PTO/SB/08A and/or B, which may be material to the patentability of this application and/or for which there may be a duty to disclose in accordance with 37 C.F.R. §1.56.

The enclosed references were cited in an International Search Report dated June 3, 2003 (copy enclosed) from the Japanese Patent Office concerning counterpart International Application No. PCT/JP03/02289, and/or are cited and discussed in the Background section of the specification. Comments on the non-English language references are included on the attached list of references.

In accordance with the official waiver posted July 11, 2003, wherein the U.S. Patent and Trademark Office officially waives the requirement under 37 C.F.R. § 1.98(a)(2)(i) for submitting copies of each cited U.S. Patent and U.S. Patent Application Publications with respect to applications filed after June 30, 2003, we have not included copies of such cited U.S. patent and U.S. Patent Application Publications. However, we will provide copies upon request. Copies of the foreign references are attached hereto for the Examiner's convenience.

The filing of this Information Disclosure Statement shall not be construed as an admission that any of the listed documents constitutes prior art, nor as an admission against

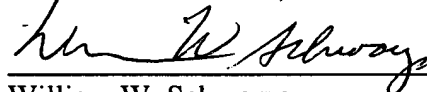
interest in any manner.

No fee is believed to be due in connection with the filing of this Information Disclosure Statement since it is being filed within three months of the filing date of the above-identified application. However, the Commissioner is hereby authorized to charge any deficiencies or credit any overpayments to Deposit Account No. 50-1017.

It is respectfully requested that this Information Disclosure Statement and the documents listed on the attached Form PTO/SB/08A and/or B be considered and acknowledged by the Examiner in connection with the above-identified patent application, be made of record therein, and that the listed document(s) be cited in the issued patent.

Respectfully submitted,

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WWS:vj  
Enclosures

Form PTO/SB/08A		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		Application Number	To Be Assigned <b>10/506645</b>
		Filing Date	Herewith
		First Named Inventor	Hiroaki ABEKAWA, et al
		Group Art Unit	To Be Assigned
		Examiner Name	To Be Assigned
Sheet 1 of 1	Attorney Docket Number	600630-24US(595534US01)	

U.S. PATENT DOCUMENTS				
Exr Initials	U.S. Patent Document		Name of First Inventor of Cited Document	Date of Publication of Cited Document MM-YYYY
	Number	Kind Code (if known)		
	4,954,325		Rubin, et al.	09-1990
	6,114,551		Levin, et al.	09-2000
	6,106,797		Müller, et al.	08-2000
	6,740,764	B1	Chen, et al.	05-2004
	4,824,976		Clerici, et al.	04-1989
	4,937,216		Clerici, et al.	06-1990
	5,840,650		Tamura, et al.	11-1998

FOREIGN PATENT DOCUMENTS						
Exr Initials	Foreign Patent Document			Name of Applicant of Cited Document	Date of Publication of Cited Document MM-YYYY	T <sub>1</sub>
	Country Code	Number	Kind Code (if known)			
	WO	01/34298	A1	BASF AG	05-2001	
	WO	00/64582	A1	Bayer AG	11-2000	X
	WO	99/26936	A2	E.I. DuPont de Nemours & Co.	06-1999	X
	EP	1048639	A1	Mitsui Chemicals, Inc.	11-2000	X
	JP	8-269031	A	Sumitomo Chemical Co., Ltd.	10-1996	
	JP	62-185081	A	Enichem Synthesis SpA Eniricerche SpA	08-1987	X*
	WO	03/074421	A1	Showa Denko K.K.	09-2003	X

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Exr Initials	Include Name of first Author (in CAPITAL LETTERS), title of the article (where appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), volume-issue number(s), page(s), date (in parentheses). If a book, also include publisher and city and/or county where published.		T <sub>1</sub>
	WU, P., et al., "Hydrothermal synthesis of a novel titanasilicate with MWW topology", <i>Chem. Lett.</i> , Vol. 7, pp. 774-775 (2000).		X
	WU, P., et al., "Extremely high <i>trans</i> selectivity of Ti-MWW in epoxidation of alkenes with hydrogen peroxide", <i>Chem. Comm.</i> , pp. 897-898 (2001).		X
	WU, P., et al., "A novel titanasilicate with MWW structure, I. Hydrothermal Synthesis, Elimination of Extraframework Titanium, and Characterizations", <i>J. Phys. Chem. B.</i> , Vol. 105, pp. 2897-2905 (2001).		X
	SHOKUBAI, "Postsynthesis Ti-MWW", <i>Catalysts and Catalysts</i> , Vol. 44, No. 6, pp. 468-470 (2002).		
	CLERICI, M.G., et al., "Synthesis of propylene oxide from propylene and hydrogen peroxide catalyzed by titanium silicalite", <i>J. Catalysis</i> , Vol. 129, pp. 159-167 (1991).		X
	THANGARAJ, A., "Catalytic properties of crystalline titanium silicates", <i>J. Catalysis</i> , 130, pp. 1-8 (1991).		X
	Proceedings of the 88 <sup>th</sup> Catalysis Society of Japan Meeting A, p. 154 (2001).		
	Proceedings of the 89 <sup>th</sup> Catalysis Society of Japan Meeting A, p. 65 (2002).		
	Report of R&D projects for "Next-generation Chemical Process Technology /Non-halogen Chemical Process Technology" FY2000 Annual Report, pp. 261-168, (2001)		
	Report of R&D projects for "Next-generation Chemical Process Technology /Non-halogen Chemical Process Technology" FY2001 Annual Report, pp. 168-209, (2002)		

Examiner Signature		Date Considered	
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T<sub>1</sub> - Place a check mark if complete document is in English; otherwise, place a letter "A" if only an English abstract is attached.

# REFERENCE LIST

[ Your Ref.:600630.0023/24US Our Ref.: 595534US01 ]

No	Reference	Copy	Citation in the specification	English Translation	Notes
1	US4954325	Enclosed	No		
2	US6114551	Enclosed	Yes		
3	Chemistry Letters, 2000, p.774-775	Enclosed	Yes		ISR
4	Chemical Communication, 2001, p.897-898	Enclosed	Yes		
5	US6106797	Enclosed	No		
6	J. Physical Chemistry B, 105, 2897(2001)	Enclosed	Yes		
7	Shokubai(Catalysts & Catalysis), 44, No.6, p.468(2002)	Enclosed	Yes	No	This document discloses the preparation of Ti-MWW by postsynthesis.
8	J. Catalysis 129, 159 (1991)	Enclosed	No		
9	J. Catalysis 130, 1 (1991)	Enclosed	No		
10	JP62-185081A	Enclosed	No	Abstract	
11	Proceedings of the 88 <sup>th</sup> Catalysis Society of Japan Meeting A, 154,(2001),published September 2001	Enclosed	Yes	No	This document discloses synthesis of Ti-MWW by dry gel conversion.
12	Proceedings of the 89 <sup>th</sup> Catalysis Society of Japan Meeting A, 65,(2002), published March 20, 2002	Enclosed	No	No	This document discloses epoxidation reaction of propylene with hydrogen peroxide using silylated Ti-MWW by the present inventors.

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13	US6740764	Enclosed	No		
14	US4824976	Enclosed	No		
15	US4937216	Enclosed	No		
16	US5840650	Enclosed	No		ISR Family of JP8-269031A
17	WO 00/64582	Enclosed	No		
18	WO 01/34298	Enclosed	No		
19	WO 99/26936	Enclosed	No		ISR
20	EP 1048639A	Enclosed	No		ISR
21	Heisei 12 nendo Jisedai Kagaku Process Gijutu Kaihatu Non-halogen Kagaku Process Gijutu Kaitahatu Seika Houkokusho FY2000 Annual Report, 261-268, ( March, 2001)	Enclosed	No	No	This document discloses Ti-MWW catalyzed epoxidation of propylene with hydrogen peroxide in a flow reactor at a paragraph bridging from page 266 to 277, in which epoxidation propylene was passed through an aqueous mixture of a catalyst and hydrogen peroxide.
22	Heisei 13 nendo Jisedai Kagaku Process Gijutu Kaihatu Non-halogen Kagaku Process Gijutu Kaitahatu Seika Houkokusho FY2001 Annual Report, 168-209, (March, 2002)	Enclosed	No	No	This document discloses, mostly at pages 186 to 194 epoxidation reactions by the present inventors, and at and silylation of Ti-MWW catalyst at a paragraph bridging from p.177 to 178. This document was drawn up March 2002 and sent to the authors contributed to the report with a cover letter dated June 2, 2002 after the earliest priority date of the PCT.
23	WO 03/074421	Enclosed	No		

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